UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

June 22, 2005

Reply To
Attn Of: ECL-110

(sent via e-mail and regular mail)

Ms. Anne Summers, Mr. Jim McKenna
Port of Portland
121 NW Everett
P.O. Box 3529
Portland OR 97209

Mr. Robert Wyatt
NW Natural
220 NW 2nd Avenue
Portland OR 97209

Mr. Larry Patterson
Arkema Group, Inc.
6400 NW Front Ave.
Portland, OR 97210

Subject: HASP Dive Protocols

Dear Sirs/Madame:

We are writing to you as the Project Coordinators for the current Superfund activities occurring at the Portland Harbor Superfund Site. Divers have been used for sampling, monitoring, and other activities and, we suspect, will occur in the future. We wish to remind you of the need to ensure that appropriate, specific health and safety protocols are followed for the diver work.

As you know, diving generally falls into two categories: work diving subject to full OSHA regulation under 1910 Subpart T, and scientific diving which is exempt from many OSHA provisions (1910 Subpart T Appendix B). Work conducted in the gathering of data generally falls under the latter diving exemption. However, work conducted in support of removal or remedial actions may not and is likely subject to commercial diving regulations. Further, diving within a Superfund site may require additional personal protective equipment beyond that typically used for diving. Per 1910.120, Health and Safety Plans (HASPs) should discuss the rationale for appropriate diver personal protective equipment (PPE), training requirements, procedures, and other equipment. Due to the potential hazardous diving environment represented by most parts of the Willamette River due to low visibility, high and low temperatures, obstructions, overhead environments, polluted water/sediment, and other hazards, we trust that you will be applying appropriate health and safety protocols in these matters.

The following are general dive safety practices, PPE, and training requirements that EPA's Dive Team use in this type of dive environment, which you may wish to consider:

1. solo/tethered scuba diving (or surface supply) diving due to consistent poor visibility making working with a buddy difficult or impractical;
2. wired communications with a topside tender;
3. surface supply for work diving (e.g. silt curtain maintenance);
4. surface supply with a hardhat mated to the drysuit for diving in particularly polluted areas (e.g. near an active dredge prism of principal threat material);
5. decontamination consisting at a minimum of a clean freshwater rinse after each diver leaves the water while gear remains intact (See: EPA/600/2-85/130);
6. divers do not break face mask or glove seals in the water except in emergency situations;
7. leak-free vulcanized rubber drysuit and drygloves suitable to decon;
8. diver monitoring for heat/cold stress;
9. bailout air supply of at least 20 cubic feet fitted to the full face mask or helmet via a valve such as a Kirby Morgan block (J valve equipped primary tanks do not constitute a true reserve air supply);
10. positive pressure full face mask (e.g. Interspiro AGA) or helmet which fits against or mates to the drysuit such that the diver does not come in contact with the river water;
11. oxygen kit aboard the dive platform consisting of a 30 minute supply at a minimum for two divers;
12. first aid kit aboard the dive platform;
13. commercial, governmental, or military dive training (many USCG accident reports credit inadequate (e.g. recreational) training as a contributor to work diving accidents);
14. 40 hour hazwoper training as specified in 1910.120 with an 8 hour refresher within 12 months of the dive being conducted;
15. CPR/AED/First aid certification within the last year or two years as appropriate; and
16. formal oxygen administration training within the last two years.

During reports of widespread combined sewer overflow, diving is discontinued or conducted via surface supplied air with helmets mated to the drysuit.

HASPs are sent to EPA for review and comment under the terms of our respective consent orders. However, we thought we would give you our thoughts now about certain protocols and procedures you may wish to consider. Also, for more timely review of HASPs and dive plans, please email them directly to: Sheldrake.sean@epa.gov, blischke.eric@epa.gov, and Humphrey.chip@epa.gov. Dive plans should go into explicit detail on project specific dive procedures. Please let us know if you have any questions or concerns at (206) 553-1220.

Sincerely,

/s/	/s/	/s/
Sean Sheldrake, Project Manager	Chip Humphrey Project Manager	Eric Blischke Project Manager

Enclosure

Cc:

Jim Anderson, DEQ	via email	Carl Stivers, Anchor
Lori Cora, EPA		Mark Brady, EI
Joe Goulet, EPA		Rob Neely, NOAA
Jean Lee, EI		Philip Spadaro, BBL

Enclosure: References

For more details, please see:

http://www.osha.gov/pls/oshaweb/owastand.display_standard_group?p_toc_level=1&p_part_number=1910

http://yosemite.epa.gov/r10/oea.nsf/webpage/Dive+Team+Safety (See Interim Protocol for Diving Operations in Contaminated Water, EPA/600/2-85/130)

Also see:

1. Coolbaugh, James C., and Daily, Otis P., "Protection of Divers in Biologically Contaminated Waters, " Ocean Engineering and the Environment Conference Record, Nov. 12-14, 1985, San Diego, CA, pp. 952-955.

2. Barsky, Steven M., Diving in High-Risk Environments, 3rd Edition, Hammerhead Press, Santa Barbara, CA, 1999, previous editions were published in 1989 and 1993.

3. Viking Chemical Resistance Report

4. Barsky, Steven M., Diving with the Divator MK II Full Face Mask, Team Vision, Inc., Fort Collins, CO, 1994.

5. USCG District 17 vessel safety reports (call to request a copy (907) 463-2810).